

What is claimed is:

1. A tool kit for servicing pins in a telecommunications device having electronic modules, a backplane, and pin connectors connecting the electronic modules to the backplane, the kit comprising:

a handle;

a pin insertion tool attachable to said handle, said pin insertion tool including pin locating means for specifying a specific position for a pin connector to be inserted into the backplane.

✓ 2. A pin service tool kit according to Claim 1, said pin locating means comprising:

a head piece having a plurality of pin holes corresponding in arrangement to a plurality of pin connectors disposed on the backplane, said pin holes each adapted to receive a pin insertable into the backplane.

✓ 3. A pin service tool kit according to Claim 1, further comprising guiding means for guiding said pin insertion tool to a specific predetermined section of the backplane.

✓ 4. A pin service tool kit according to Claim 3, said guiding means comprising:

at least one shroud, having a frame at least partially surrounding an area, said shroud having feet disposed on a bottom side of said frame, said feet being attachable onto the backplane,

wherein when said shroud is attached to the backplane, said frame at least partially surrounds and substantially isolates a predetermined plurality of pin connectors on the backplane.

✓ 5. A pin service tool kit according to Claim 2, wherein said pin holes on said head piece are arranged to correspond to a specific chicklet of pin connectors on the backplane.

✓ 6. A pin service tool kit according to Claim 1, said pin locating means comprising a plurality of head pieces each having a specific configuration of pin holes corresponding in arrangement to a specific plurality of pin connectors disposed on the backplane, said pin holes each adapted to receive a pin insertable into the backplane.

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- ✓ 7. A pin service tool kit according to Claim 5, said pin locating means comprising a plurality of head pieces each having a specific configuration of pin holes corresponding in arrangement to a specific chicklet on the backplane, said pin holes each adapted to receive a pin insertable into the backplane,
wherein each of said head pieces corresponds to a different specific chicklet on the backplane.
- 8. A pin service tool kit according to Claim 4, wherein said frame of said shroud is shaped to isolate a specific chicklet of pin connectors on the backplane.
9. A pin service tool kit according to Claim 3, said guiding means comprising a plurality of shrouds each having a specific geometry corresponding to a specific plurality of pin connectors disposed on the backplane.
- 10. A pin service tool kit according to Claim 8, said guiding means comprising a plurality of shrouds each having a specific geometry corresponding to a specific chicklet on the backplane.
- 11. A pin service tool kit according to Claim 2, further comprising:
at least one shroud, having a frame at least partially surrounding an area, said shroud having feet disposed on a bottom side of said frame, said feet being attachable onto the backplane,
wherein when said shroud is attached to the backplane, said frame at least partially surrounds and substantially isolates a predetermined plurality of pin connectors on the backplane.
- 12. A pin service tool kit according to Claim 11, said head piece being fittable into at least a top portion of said frame of said shroud,
wherein said shroud guides said pin insertion tool to the predetermined plurality of pin connectors isolated by said frame.
- ✓ 13. A pin service tool kit according to Claim 7, further comprising:
guiding means for guiding said pin insertion tool to a specific predetermined section of the backplane.

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14. A pin service tool kit according to Claim 13, said guiding means comprising a plurality of shrouds each having a specific geometry corresponding to a specific plurality of pin connectors disposed on the backplane.
15. A pin service tool kit according to Claim 14, each of said head pieces being respectively fittable into at least a top portion of said frame of one of said plurality of shrouds,
wherein said shrouds guide said pin insertion tool to the predetermined plurality of pin connectors isolated by said frames.
16. A pin service tool kit according to Claim 12, said head piece and said frame being asymmetric, wherein said head piece may be fitted into said frame in only one orientation.
17. A pin service tool kit according to Claim 15, each of said head pieces and said shrouds having a unique asymmetric shape, wherein each of said head pieces may be fitted into only respective one of said shrouds in only one orientation.
18. A pin service tool kit according to Claim 4, said feet being asymmetric, wherein said shroud is attachable to the backplane in only one orientation and in only certain predetermined locations.
19. A pin service tool kit according to Claim 10, said feet being asymmetric, wherein said shrouds are each respectively attachable to the backplane in only one respective orientation and in only certain predetermined locations.
20. A pin service tool kit according to Claim 15, said feet being asymmetric, wherein said shrouds are each respectively attachable to the backplane in only one respective orientation and in only certain predetermined locations.

✓ 21. A pin service tool kit according to Claim 1, said handle having a length substantially the same dimension as a depth of the telecommunications device being serviced.

✓ 22. A pin service tool kit according to Claim 1, said handle telescopable from a shorter collapsed configuration to a longer extended configuration.

✓ 23. A pin service tool kit according to Claim 1, further comprising a boroscope, including a hollow shaft and an ocular, enabling a user to identify which pins need servicing.

✓ 24. A pin service tool kit according to Claim 1, further comprising a pin seating tool, attachable to said handle, for pushing a replacement pin securely into the backplane after said pin insertion tool has inserted the pin into the backplane.

○ 25. A pin service tool kit according to Claim 4, further comprising a pin seating tool, attachable to said handle and fittable into said frame of said shroud, for pushing a replacement pin securely into the backplane after said pin insertion tool has inserted the pin into the backplane.

○ 26. A pin service tool kit according to Claim 15, further comprising a plurality of pin seating tools, each attachable to said handle and each respectively fittable into one of said frames of one of said shrouds, for pushing a replacement pin securely into the backplane after said pin insertion tool has inserted the pin into the backplane.

○ 27. A pin service tool kit according to Claim 26, wherein each of said pin insertion tools has an asymmetric geometry and can only be fitted into a corresponding one of said shrouds.

○ 28. A pin service tool kit according to Claim 12, further comprising a spring disposed around said pin insertion tool, wherein when said head piece is being removed from said shroud, said spring pushes against said frame of said shroud to keep said shroud attached to the backplane.

29. A pin service tool kit according to Claim 15, further comprising a spring disposed around said pin insertion tool, wherein when one of said head pieces is being removed from a respective of said shrouds, said spring pushes against said frame of said shroud to keep said shroud attached to the backplane.

30. A pin service tool kit according to Claim 1, further comprising:
a plurality of said pin insertion tools each having a different head piece each having a specific configuration of pin holes corresponding in arrangement to a specific chicklet on the backplane, said pin holes each adapted to receive a pin insertable into the backplane, each of said head pieces corresponding to a different specific chicklet on the backplane;

a plurality of springs each respectively disposed around each of said pin insertion tools; and

a plurality of shrouds each having a specific geometry corresponding to a specific plurality of pin connectors disposed on the backplane, each of said head pieces being respectively fittable into at least a top portion of said frame of one of said plurality of shrouds,

wherein said shrouds guide said pin insertion tool to the predetermined respective plurality of pin connectors isolated by said respective frames, and wherein when one of said head pieces is being removed from said respective shroud, said spring pushes against said frame of said shroud to keep said shroud attached to said backplane.

31. A tool kit for servicing pins in a telecommunications device having electronic modules, a backplane, and pin connectors connecting the electronic modules to the backplane, the kit comprising:

a handle;

a pin insertion tool attachable to said handle, said pin insertion tool including a head piece having a plurality of pin holes corresponding in arrangement to a plurality of pin connectors disposed on the backplane, said pin holes each adapted to receive a pin insertable into the backplane, said head piece specifying a specific position for a pin connector to be inserted into the backplane.

0 32. A pin service tool kit according to Claim 31, further comprising:

at least one shroud, having a frame at least partially surrounding an area, said shroud having feet disposed on a bottom side of said frame, said feet being attachable onto the backplane, said head piece being fittable into at least a top portion of said frame of said shroud,

wherein when said shroud is attached to the backplane, said frame at least partially surrounds and substantially isolates a predetermined plurality of pin connectors on the backplane, and wherein said shroud guides said pin insertion tool to the predetermined plurality of pin connectors isolated by said frame.

0 33. A pin service tool kit according to Claim 32, wherein said pin holes on said head piece are arranged to correspond to a specific chicklet of pin connectors on the backplane, and wherein said frame of said shroud is shaped to isolate a specific chicklet of pin connectors on the backplane.

0 34. A pin service tool kit according to Claim 33, further comprising:

a plurality of said head pieces each having a specific configuration of pin holes corresponding in arrangement to a specific chicklet on the backplane, said pin holes each adapted to receive a pin insertable into the backplane, each of said head pieces corresponding to a different specific chicklet on the backplane, and

a plurality of shrouds each having a specific geometry corresponding to a specific plurality of pin connectors disposed on the backplane, each of said head pieces being respectively fittable into at least a top portion of said frame of one of said plurality of shrouds,

wherein said shrouds guide said pin insertion tool to the predetermined respective plurality of pin connectors isolated by said respective frames.

0 35. A pin service tool kit according to Claim 34, each of said head pieces and said shrouds having a respectively unique asymmetric shape, wherein each of said head pieces may be fitted into only respective one of said shrouds in only one orientation.

36. A pin service tool kit according to Claim 34, said feet being asymmetric, wherein said shrouds are each respectively attachable to the backplane in only one respective orientation and in only certain predetermined locations.

✓ 37. A pin service tool kit according to Claim 31, said handle having a length substantially the same dimension as a depth of the telecommunications device being serviced.

✓ 38. A pin service tool kit according to Claim 31, said handle telescopable from a shorter collapsed configuration to a longer extended configuration.

✓ 39. A pin service tool kit according to Claim 31, further comprising a boroscope, including a hollow shaft and an ocular, enabling a user to identify which pins need servicing.

40. A pin service tool kit according to Claim 31, further comprising a pin seating tool, attachable to said handle, for pushing a replacement pin securely into the backplane after said pin insertion tool has inserted the pin into the backplane.

41. A pin service tool kit according to Claim 32, further comprising a pin seating tool, attachable to said handle and fittable into said frame of said shroud, for pushing a replacement pin securely into the backplane after said pin insertion tool has inserted the pin into the backplane.

42. A pin service tool kit according to Claim 34, further comprising a plurality of pin seating tools, each attachable to said handle and each respectively fittable into one of said frames of one of said shrouds, for pushing a replacement pin securely into the backplane after said pin insertion tool has inserted the pin into the backplane.

6 43. A pin service tool kit according to Claim 35, further comprising a plurality of pin seating tools, each attachable to said handle and each respectively fittable into one of said frames of one of said shrouds, for pushing a replacement pin securely into the backplane after said pin insertion tool has inserted the pin into the backplane,

wherein each of said pin seating tools has an asymmetric geometry and can only be fitted into a corresponding one of said shrouds.

44. A pin service tool kit according to Claim 33, further comprising
a plurality of said pin insertion tools each having a different head piece each having a specific configuration of pin holes corresponding in arrangement to a specific chicklet on the backplane, said pin holes each adapted to receive a pin insertable into the backplane, each of said head pieces corresponding to a different specific chicklet on the backplane;

a plurality of shrouds each having a specific geometry corresponding to a specific plurality of pin connectors disposed on the backplane, each of said head pieces being respectively fittable into at least a top portion of said frame of one of said plurality of shrouds,

wherein said shrouds guide said pin insertion tool to the predetermined respective plurality of pin connectors isolated by said respective frames.

45. A pin service tool kit according to Claim 44, further comprising a plurality of springs each respectively disposed around each of said pin insertion tools,

wherein when one of said head pieces is being removed from said respective shroud, said respective spring pushes against said frame of said shroud to keep said shroud attached to said backplane.

46. A pin service tool kit according to Claim 32, further comprising a spring disposed around said pin insertion tool, wherein when said head piece is being removed from said shroud, said spring pushes against said frame of said shroud to keep said shroud attached to the backplane.